DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 99–NM–242–AD; Amendment 39–11717; AD 2000–09–08]

RIN 2120–AA64

Airworthiness Directives; Boeing Model 747–100, –200, 747SP, and 747SR Series Airplanes Equipped With Pratt & Whitney JT9D–7, –7A, –7F, and –7J Series Engines

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to certain Boeing Model 747–100, –200, 747SP, and 747SR series airplanes, that requires one-time detailed visual and eddy current inspections to detect cracking of the nose cowl mounting flange; rework of the nose cowl mounting flange; eddy current inspection to detect cracking of the reworked nose cowl mounting flange; and corrective action, if necessary. This amendment is prompted by reports of the nose cowl separating from the engine and departing the airplane following severe engine vibration. The actions specified by this AD are intended to prevent separation of the nose cowl from the engine, which could cause collateral damage to the airplane, and, possibly, reduced controllability of the airplane.

DATES: Effective June 16, 2000.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the **Federal Register** as of June 16, 2000.

ADDRESSES: The service information referenced in this AD may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124–2207.

This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the **Federal Register**, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Dionne Krebs, Aerospace Engineer, Propulsion Branch, ANM–140S, FAA, Transport Airplane Directorate, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055–4056; telephone (425) 227–2250; fax (425) 227–1181.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to certain Boeing Model 747–100, –200, 747SP, and 747SR series airplanes was published in the **Federal Register** on October 6, 1999 (64 FR 54240). That action proposed to require one-time detailed visual and eddy current inspections to detect cracking of the nose cowl mounting flange; rework of the nose cowl mounting flange; eddy current inspection to detect cracking of the reworked nose cowl mounting flange; and corrective action, if necessary.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

Support for the Proposed Rule

One commenter supports the proposed rule.

Request to Remove Paragraph (c)

Two commenters (who otherwise support the proposal) request that paragraph (c) of the proposed rule be eliminated. That paragraph reads, ''As of the effective date of this AD, no person shall install a nose cowl on any airplane, unless it has been inspected and modified in accordance with paragraph (a) of this AD.'' One commenter states that this paragraph would effectively require modification of nose cowls well before the 24-month compliance time, which could result in an airplane being out of service for an extended period if an unexpected engine change is necessary. The other commenter states that, if paragraph (c) is included in the final rule, the commenter would have to purchase at least one additional spare nose cowl, because approximately 50 percent of its engine changes occur at locations that do not have a spare nose cowl. The commenter states that if an engine change occurs at a location that does not have a spare modified nose cowl, the time necessary to return the airplane to service will increase by at least six hours, which would result in lengthy flight delays or cancellations that would be costly and would cause disruptions for the traveling public. The commenter states that purchasing a new spare nose cowl would be expensive and would require a lead time of 300 days.

The FAA concurs with the commenters' request to eliminate paragraph (c) of the proposed rule. The FAA's intent is to allow operators to accomplish the necessary inspections and rework during a regularly scheduled maintenance interval. Therefore, paragraph (c) of the proposed rule has not been included in this final rule. The FAA finds that eliminating paragraph (c) of the proposed rule will not adversely impact the safety of the affected airplane fleet and will allow more flexibility for operators in complying with the requirements within the specified compliance time.

Request to Extend Compliance Time

One commenter requests that paragraph (a) of the proposed rule be revised to extend the compliance time from 24 months, as proposed, to 36 months. The commenter states that the ''very aggressive incorporation rate requirements'' are not justified, given that there have been few incidents of nose cowl separations. The commenter states that extending the compliance time would allow the required actions to be accomplished during scheduled maintenance opportunities.

The FAA does not concur with the commenter's request. In developing an appropriate compliance time for this action, the FAA considered the safety implications, parts availability, and normal maintenance schedules for timely accomplishment of the requirements of this AD. In consideration of these items, as well as the reports of six in-service nose cowl separations, the FAA has determined that 24 months represents an appropriate interval of time allowable wherein the modifications can be accomplished during scheduled maintenance intervals for the majority of affected operators and an acceptable level of safety can be maintained. No change to the final rule is necessary in this regard.

Challenge to Justification for Proposed Requirements

One commenter, an operator, states that, while it has no technical objection to the rework of the nose cowl mounting flange described in the proposed rule, it cannot recall any incident on its fleet of affected airplanes, in which ingestion of a foreign object into the engine resulted in separation of the nose cowl. The commenter questions the conditions that existed and the events that occurred during the incidents of nose cowl separation referenced in the proposed rule. The commenter challenges the justification for the proposed requirements if the FAA determines that unique conditions or circumstances led to the incidents in question. The commenter makes no specific request for a change to the proposed rule.

The FAA infers that the commenter is requesting that the FAA consider withdrawing the proposed rule. The FAA does not concur. The information that the FAA has received regarding incidents of nose cowl separation does not suggest that there were any conditions common to all incidents besides the configuration of the nose cowl mounting flange. The information has led the FAA to determine that the 37-bolt mounting flange configuration is not adequate to retain the nose cowl on Pratt & Whitney JT9D series engines, and that the modification of the nose cowl mounting flange described in the proposed rule is necessary. No change to the final rule is necessary in this regard.

Request to Remove References to ''Reduced Controllability of the Airplane''

One commenter states that, ''To date, no evidence of reduced airplane controllability during or after separation [of the nose cowl] has been reported.'' The commenter makes no specific request and provides no further information related to its comment.

The FAA infers that the commenter is requesting that references to ''reduced controllability of the airplane'' be removed from the proposed rule. The FAA concurs with the commenter's statement that there have been no reported instances of reduced airplane controllability during or after the separation of a nose cowl. However, the potential exists for reduced controllability during or after the separation of a nose cowl, if the separated nose cowl comes into contact with the airplane. This possibility is the basis for determining that the separation of a nose cowl is an unsafe condition. Therefore, the FAA finds that no change to the final rule is necessary in this regard.

Request to Revise ''Explanation of Relevant Service Information'' Section

One commenter, the manufacturer, states that the service bulletin referenced in the proposed rule was issued not as an inspection bulletin to detect cracking in the mounting flange, but, instead, to provide instructions for strengthening the attachment capability of the nose cowl by increasing the number of attachment fasteners. The commenter also states that it has not received reports of cracking in the nose cowl flange, nor has cracking been identified as the cause of the nose cowl separation. The commenter further states that the eddy current and detailed visual inspections described in the service bulletin are a common maintenance/rework practice after machining operations such as drilling holes, to ensure that no damage was done during the operation.

The commenter makes no specific request for a change to the proposed rule. However, the FAA infers that the commenter is requesting that the ''Explanation of Relevant Service Information'' section of the proposed rule be revised to eliminate references to cracking and to clarify the purpose of the eddy current and detailed visual inspections. The FAA concurs with the commenter's description of the intent of the service bulletin; however, because the referenced section is not restated in the final rule, no change to this section is necessary. In response to this comment, the FAA has also reviewed the explanation of the unsafe condition in the ''Discussion'' section of the proposed rule, and finds that the section accurately describes the intent and background of the proposed rule. No change to the final rule is necessary in this regard.

Request to Revise Cost Impact Estimate

One commenter requests an increase in the cost estimate of the proposed rule. The commenter points out that the proposed rule estimates that it will take approximately 19 work hours per airplane to accomplish the proposed actions, while the service bulletin estimates approximately 34 work hours per airplane for the actions described in the service bulletin. Also, the commenter points out that the cost figures in the proposed rule do not account for the cost of accomplishing the proposed actions on spare nose cowls, which the commenter estimates will take approximately 5.5 work hours per nose cowl.

The FAA infers that the commenter is requesting that the cost impact information in the final rule be revised to reflect the service bulletin estimates and to incorporate the estimated cost for inspecting and reworking spares. The FAA does not concur with the commenter's request. The cost impact information in AD rulemaking actions describes only the ''direct'' costs of the specific actions required by this AD. The number of work hours necessary to accomplish the required actions (specified as 19 in the cost impact information in the proposed rule and restated below) was provided to the FAA by the manufacturer based on the best data available to date. This number represents the time necessary to perform only the actions actually required by this AD. The FAA recognizes that, in accomplishing the requirements of any AD, operators may incur ''incidental'' costs in addition to the ''direct'' costs. The cost analysis in AD rulemaking actions, however, typically does not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions. Because incidental costs may vary significantly from operator to operator, they are almost impossible to calculate. In addition, the estimated cost to modify ''spare'' parts is not typically included in AD rulemaking actions. No change to the final rule is necessary in this regard.

Conclusion

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the change previously described. The FAA has determined that this change will neither increase the economic burden on any operator nor increase the scope of the AD.

Cost Impact

There are approximately 257 airplanes of the affected design in the worldwide fleet. The FAA estimates that 106 airplanes of U.S. registry will be affected by this AD, that it will take approximately 19 work hours per airplane to accomplish the required actions, and that the average labor rate is $60 per work hour. Required parts will cost approximately $500 per airplane. Based on these figures, the cost impact of the AD on U.S. operators is estimated to be $173,840, or $1,640 per airplane.

The cost impact figure discussed above is based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted.

Regulatory Impact

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this action (1) Is not a ''significant regulatory action'' under Executive Order 12866; (2) is not a ''significant rule'' under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3)

will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption **ADDRESSES**.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

2000–09–08 Boeing: Amendment 39–11717. Docket 99–NM–242–AD.

Applicability: Model 747–100, –200, 747SP, and 747SR series airplanes; certificated in any category; equipped with Pratt & Whitney JT9D–7, –7A, –7F, and –7J series engines.

Note 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (c) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent separation of the nose cowl from the engine, which could cause collateral damage to the airplane, and, possibly, reduced controllability of the airplane, accomplish the following:

One-Time Inspections and Rework

(a) Within 24 months after the effective date of this AD, perform one-time detailed visual and eddy current inspections to detect cracking of the existing nose cowl mounting flange, rework the nose cowl mounting flange to increase the number of attachment fastener holes from 37 to 67, and perform a one-time eddy current inspection to detect cracking of the new fastener holes in the reworked nose cowl mounting flange, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 747–71–2290, dated March 18, 1999.

Note 2: For the purposes of this AD, a detailed visual inspection is defined as ''An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aides such as mirror, magnifying lenses, etc., may be used. Surface cleaning and elaborate access procedures may be required.''

Corrective Action

(b) If any crack is found during any inspection required by paragraph (a) of this AD: Prior to further flight, repair in accordance with a method approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA, Transport Airplane Directorate.

Alternative Methods of Compliance

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Seattle ACO. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

Note 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

Special Flight Permits

(d) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(e) Except as provided by paragraph (b) of this AD, the actions shall be done in accordance with Boeing Service Bulletin 747–71–2290, dated March 18, 1999. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124–2207. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

Effective Date

(f) This amendment becomes effective on June 16, 2000.

Issued in Renton, Washington, on May 3, 2000.

Vi L. Lipski,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 00–11545 Filed 5–11–00; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 99–NM–212–AD; Amendment 39–11716; AD 2000–09–07]

RIN 2120–AA64

Airworthiness Directives; McDonnell Douglas Model DC–10–10, –15, –30, –30F, and –40 Series Airplanes, and KC–10A (Military) Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to certain McDonnell Douglas Model DC–10–10, –15, –30, –30F, and –40 series airplanes, and KC–10A (military) airplanes, that requires a one-time general visual inspection of circuit breakers to determine the manufacturer of the circuit breakers, and corrective action, if necessary. This amendment is prompted by incidents of smoke and electrical odor in the flight compartment and cabin area as a result of failure of circuit breakers. The actions specified by this AD are intended to prevent internal overheating and arcing of circuit breakers and airplane wiring due to long-term use and breakdown of internal components of the circuit breakers, which could result in smoke and fire in the flight compartment and main cabin.

DATES: Effective June 16, 2000.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of June 16, 2000.

ADDRESSES: The service information referenced in this AD may be obtained from Boeing Commercial Aircraft Group, Long Beach Division, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Technical Publications Business Administration, Dept. C1–L51 (2–60). This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA,